In the Claims

1. (Original) A testable optical subassembly for use in an opto-electric module to transmit optical signals between a fiber held in a ferrule and an OED, said optical subassembly comprising a unitary structure of an optically-clear moldable material having at least the following features:

an optical path for transmitting optical signals between said fiber and said OED;

a ferrule-receiving bore for receiving said ferrule and aligning said fiber held therein to said optical path; and

an OED-receiving cavity for receiving a lead frame and aligning said OED mounted thereon to said optical path in one or more axes.

2. (Original) The testable optical subassembly of claim 1, wherein said optical path comprises at least:

a first lens adapted for optically coupling with said fiber;

a second lens adapted for optically coupling with said OED; and

at least one reflective surface disposed along said optical path to alter the direction of said optical path.

3. (Original) The testable optical subassembly of claim 1, further comprising:

said lead frame mounted in said OED-receiving cavity such that said OED is optically coupled to said optical path.

4. (Original) The testable optical subassembly of claim 1, wherein said optical block comprises an injection- moldable material.

5. (Original) The testable optical subassembly of claim 1, wherein said OED-receiving cavity is standardized to a particular lead frame configuration, said lead frame configuration being adapted to support lasers, LEDs, photodiodes or detectors.

6. (Original) An optoelectric module comprising:

a connector interface adapted to interconnect with a fiber assembly having a ferrule with a fiber held therein;

an optical block comprising a unitary structure of an optically-clear moldable material having at least the following features:

an optical path for transmitting optical signals between said fiber and an OED;

a ferrule-receiving bore for receiving said ferrule and aligning said fiber held therein to said optical path; and

an OED-receiving cavity for receiving a lead frame and aligning an OED mounted thereon to said optical path in one or more axes;

said lead frame mounted in said OED-receiving cavity such that said OED is optically coupled to said optical path; and

a printed circuit board comprising a plurality of contacts adapted for electrical connection with a host circuit board of a host system, a portion of said contacts being electrically coupled to said OED.

7. (Original) The module of claim 6, wherein said contacts are arranged adjacent an edge of said printed circuit board for mating with a card edge connector mounted to said host circuit board.

8. (Original) The module of claim 6, wherein said portion of contacts are electrically coupled to said OED by traces on a flat, flexible circuit board.

9. (Original) The module of claim 6, wherein said printed circuit board is pin staked to said connector interface.

10. (Original) The module of claim 6, further comprising a conductive shield mounted to said connector interface, said conductive shield at least partially enclosing said printed circuit board.

11. (Original) The module of claim 6, wherein said printed circuit board is pin staked to said connector interface at a proximal end of said printed circuit board and wherein said conductive shield comprises a resilient standoff extending out of a plane defined by a portion

of said conductive shield and into contact with said printed circuit board for supporting a distal end of said printed circuit board, wherein said resilient standoff is positioned to contact an integrated circuit chip mounted on said printed circuit board.

12. (Original) The module of claim 6, wherein said printed circuit board is pin staked to said connector interface at a proximal end of said printed circuit board and wherein said proximal end is separated from said connector interface by a printed circuit board spacer.

13. (Original) The module of claim 6, wherein said optical path comprises at least:
a first lens adapted for optically coupling with said fiber;
a second lens adapted for optically coupling with said OED; and
at least one reflective surface disposed along said optical path to alter the direction of said optical path.

14. (Original) A process of manufacturing an optoelectric module comprising the steps of:

(a) providing an optical block comprising a unitary structure of an optically-clear moldable material having at least the following features:
an optical path for transmitting optical signals between a fiber and an OED;
a ferrule-receiving bore for receiving a ferrule containing a fiber and aligning the fiber to said optical path; and
an OED-receiving cavity for receiving a lead frame with an OED mounted thereon and aligning the OED to said optical path in one or more axes;

(b) mounting a lead frame in said OED- receiving cavity such that an OED mounted on said lead frame is optically coupled to said optical path, thereby forming a testable optical subassembly;

(c) inserting a ferrule containing a fiber into said ferrule-receiving bore; and

(d) testing said testable optical subassembly before substantially further assembling said optoelectric module.

15. (Original) The process of claim 14, wherein testing is conducted while actively aligning said OED.

16. (Original) The process of claim 14, wherein testing is conducted after said OED is fixed in place within said OED-receiving cavity.